

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|-------|-------|---|--|------------------|---------|------------------|
| L1 | 20242 | (@ad<"19991118") and ((wir\$3 or bond or ball\$1 or bump\$1) with pad) and (chip or die or wafer) | USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/11/03 16:05 |
| L2 | 2557 | L1 and ((insulation or insulating or dielectric) with pad) | USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/11/03 11:51 |
| L3 | 1475 | L2 and "257"/\$.ccls. | USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/11/03 11:51 |
| L4 | 798 | L2 and (barrier or "ti" or "ta" or "tin" or "tan" or ((tantulum or titanium) adj nitride)) | USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/11/03 11:52 |
| L5 | 2 | ("6809421").URPN. | USPAT | OR | OFF | 2005/11/03 11:55 |
| L6 | 11 | ("4499655" "4774632" "4807021" "5229647" "5270261" "5399898" "5408123" "5618752" "5793105" "5846879" "5973396").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/11/03 11:55 |
| L7 | 31 | ("4499655").URPN. | USPAT | OR | OFF | 2005/11/03 11:59 |
| L8 | 22 | ("3918148" "4357203" "4882454" "4963697" "5061567" "5093153" "5154957" "5274912" "5278077" "5424581" "5643433" "5677230" "5700735" "5703408" "5718039" "5757072" "5777379" "5792538" "5812316" "5844523" "5854142" "5974025").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/11/03 12:04 |
| L9 | 4 | ("4600658" "4800177" "5057447" "5309025").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/11/03 12:08 |
| L10 | 4 | ("4600658" "4800177" "5057447" "5309025").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/11/03 12:09 |
| L11 | 3 | ("4705606" "4984061" "5189506").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/11/03 12:09 |
| L12 | 7 | ("4525383" "4543592" "4582563" "4617193" "4636832" "4656496" "4795722").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/11/03 12:09 |

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| L13 | 46 | ("4984061").URPN. | USPAT | OR | OFF | 2005/11/03 12:09 |
| L14 | 46 | ("4984061").URPN. | USPAT | OR | OFF | 2005/11/03 12:16 |
| L15 | 4 | ("4600658" "4800177" "5057447" "5309025").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/11/03 12:19 |
| L16 | 11 | ("5703408").URPN. | USPAT | OR | OFF | 2005/11/03 12:19 |
| L17 | 3 | ("5149674" "5266522" "5403777").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/11/03 12:23 |
| L18 | 28 | ("5700735").URPN. | USPAT | OR | OFF | 2005/11/03 12:24 |
| L19 | 3 | ("5149674" "5266522" "5403777").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/11/03 12:26 |
| L20 | 3 | ("5149674" "5266522" "5403777").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/11/03 12:28 |
| L21 | 28 | ("5700735").URPN. | USPAT | OR | OFF | 2005/11/03 12:39 |
| L22 | 4 | ("4392150" "4604641" "4975756" "5121186").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/11/03 13:26 |
| L23 | 5 | ("5357136").URPN. | USPAT | OR | OFF | 2005/11/03 13:44 |
| L24 | 938 | L2 not L4 | USPAT | OR | OFF | 2005/11/03 13:44 |
| L25 | 3 | ("5059756" "5360941" "5365409").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/11/03 14:27 |
| L26 | 3 | ("5059756" "5360941" "5365409").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/11/03 14:41 |
| L27 | 3 | ("6255586").URPN. | USPAT | OR | OFF | 2005/11/03 14:41 |
| L28 | 3 | ("5059756" "5360941" "5365409").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/11/03 14:49 |
| L29 | 2 | ("4636832" "5248903").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/11/03 15:20 |
| L30 | 42 | ("5502337").URPN. | USPAT | OR | OFF | 2005/11/03 15:20 |
| L31 | 0 | ("6921714").URPN. | USPAT | OR | OFF | 2005/11/03 15:21 |
| L32 | 17 | ("5149674" "5248903" "5291062" "5345108" "5475236" "5502337" "5525546" "5736791" "5739587" "5838023" "5847466" "5923088" "5939789" "6031293" "6037668" "6133625" "6265313").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/11/03 15:21 |
| L33 | 29 | ("5923088").URPN. | USPAT | OR | OFF | 2005/11/03 15:22 |

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| L34 | 13 | ("4723197" "5149674" "5284797" "5719448" "5736791" "5804883" "5912510" "5923088" "5942448" "5989991" "6187680" "6191023" "6197613").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/11/03 15:23 |
| L35 | 11 | ("5309025" "5547901" "5631498" "5668411" "5700735" "5707894" "5785236" "5795796" "5807787" "5834365" "5904565").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/11/03 15:24 |
| L36 | 9 | ("5202579" "5287002" "5403777" "5502337" "5739587" "5923088" "5942800" "6191023" "6207547").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/11/03 15:31 |
| L37 | 5 | ("5289036" "5308795" "5404047" "5412250" "5502337").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/11/03 15:38 |
| L38 | 3 | ("6577017").URPN. | USPAT | OR | OFF | 2005/11/03 15:39 |
| L39 | 7 | ("4349609" "4451326" "4523372" "4601939" "4613888" "4646126" "4821092").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/11/03 16:00 |
| L40 | 6 | ("5124781").URPN. | USPAT | OR | OFF | 2005/11/03 16:00 |
| L41 | 9 | (@ad<"19991118") and 257/459, 779.ccls. and ((tantalum adj nitride) or "tan") | USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/11/03 16:23 |
| L42 | 333 | (@ad<"19991118") and 257/459, 779.ccls. and ((titanium adj nitride) or "tin" or barrier) | USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/11/03 16:08 |
| L43 | 318 | L42 not L4 | USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/11/03 16:08 |
| L44 | 318 | L42 not L3 | USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/11/03 16:08 |
| L45 | 1 | ("5936283").URPN. | USPAT | OR | OFF | 2005/11/03 16:16 |
| L46 | 4 | ("5264729" "5338975" "5631495" "5689133").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/11/03 16:16 |

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| L47 | 17 | (@ad<"19991118") and 438/612. ccls. and ((tantalum adj nitride) or "tan") | USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/11/03 16:26 |
| L48 | 1 | ("6313024").PN. | USPAT; USOCR | OR | OFF | 2005/11/03 16:26 |